



Meeting Notes

Planning Information Forum: Setting Pavement Condition Targets -- September 18, 2015

Attendees (non-CMAP)

Name	Organization
Bruce Carmitchel	Illinois Department of Transportation
John Sadler	Chicago Department of Transportation
Emily Karry	Lake County Division of Transportation
Jill Hayes	Cook County Department of Transportation and Highways
Kevin Kerrigan	Lake County Division of Transportation
Tom Rickert	Kane County Division of Transportation
Bill Vavrik	Applied Research Associates, Inc. (Illinois Tollway)
Tammy Wierciak	West Central Municipal Conference
John Donovan	Federal Highway Administration
Mike Drake	Chicago Department of Transportation
Bill Morgan	Illinois Department of Transportation
Patrick Knapp	Kane County Council of Mayors
Jackie Forbes	Kane County Council of Mayors
Wally Dittrich	McHenry County Division of Transportation
Jim Werner	McHenry County Division of Transportation
Scott Hennings	McHenry County Division of Transportation
Mike Albin	DuPage Mayors and Managers Conference
Carl Schoedel	Kane County Division of Transportation
Christina Kupkowski	Will County Division of Transportation
Bridget Malinowski	AECOM (Illinois Tollway)
Chris Snyder	DuPage County Division of Transportation

Summary of presentations

- **Kane County Division of Transportation** (Tom Rickert). Like most of the counties in the CMAP area, Kane County now has a pavement management program, which it implemented starting in 2010. It uses a vendor to collect data to calculate Condition Rating System (CRS), International Roughness Index (IRI), as well as another measure, and then forecasts deterioration based on age. Condition and age are used to identify the most appropriate pavement preservation strategies. Kane County has seen a 15 – 20 percent cost savings from its pavement preservation program.
- **IDOT Office of Planning and Programming** (Bill Morgan). IDOT's main pavement measure is CRS. IDOT collects and rates up to 15,000 centerline miles of data on pavement condition each year and all of the National Highway System (NHS) has now



been rated. Under the Federal Highway Administration's (FHWA) proposed pavement condition rule, IDOT will need to report on and meet targets for IRI, rutting, faulting, and cracking on the National Highway System, about three-quarters of which is under IDOT jurisdiction. IDOT expects to continue to develop and use CRS values but will collect other required measures under MAP-21. Less of the interstate system is in good or excellent condition using IRI criteria in comparison to CRS while more is considered to be in fair condition. IDOT indicated that its 2015 pavement data collection program would capture some of the local system, including local arterials, and that the Illinois Roadway Information System would begin to include pavement thickness information.

- **Chicago Metropolitan Agency for Planning** (Jesse Elam). For the GO TO 2040 financial plan, CMAP used typical capital maintenance intervals to forecast resurfacing and reconstruction costs. This approach could be improved by being based on pavement condition and being tied to achieving pavement condition targets. CMAP has set up the Highway Economic Requirements System – State Version (HERS-ST) model to forecast pavement investment needs for the next long-range plan and to estimate the degree to which projects programmed in the Transportation Improvement Program (TIP) help achieve plan targets. The presentation showed initial results for these two analyses. First, achieving the GO TO 2040 plan target – to have 90 percent of centerline miles on the NHS in acceptable condition ($IRI \leq 170$) -- would require a 15 percent higher expenditure than to keep condition constant. Second, the analysis of the projects in the TIP suggested pavement condition would decline rather than helping achieve the targets.

Discussion

- There was considerable discussion on the value of IRI as a measure. In FHWA's proposed pavement condition rule, the IRI value defining acceptable conditions in urban areas was changed from 170 to 220 to accommodate the fact that urban areas typically have lower speeds (making IRI less relevant as a measure) and more underground utilities (causing roughness). One of the forum participants said that MPO and DOT comments on the proposed rule have repeatedly noted the limited usefulness of IRI as a performance measure. A participant noted that some pavement preservation techniques actually reduce ride quality even though they extend the life of the pavement.
- MAP-21 calls for MPOs to show "to the maximum extent practicable" how their TIPs would help meet performance targets. CMAP staff proposed to do this by forecasting pavement condition at the end of the period covered by the TIP based on the projects included in the TIP. However, several participants indicated that they do not include their resurfacing projects in the TIP since they are funded only by motor fuel tax or other non-federal sources.



- Since many jurisdictions are moving toward pavement preservation, participants noted that it is problematic to use a model that only deals with resurfacing and reconstruction, as HERS-ST does. A need to include widening and reconstruction projects in the analysis was also voiced.
- One participant wondered how the CMAP targets were set and whether they could be reconsidered for the upcoming plan, which staff indicated were based on IDOT's statewide goal of 90 percent acceptable pavement condition.
- A county representative urged IDOT to coordinate with local governments on pavement data collection to ensure that efforts are not being duplicated.
- Several participants mentioned that they collect data to generate a Pavement Condition Index. IRI is a factor used in calculating the Pavement Condition Index.

Considerations for next long-range plan

Based on the discussion at the forum, staff suggests that the Transportation Committee (TC) consider the following:

- While CMAP will need to set targets for whatever metric is ultimately chosen by FHWA to measure pavement condition, there is no restriction on using supplemental measures. For example, one area of need is a measure that captures pavement structural health, such as remaining service life. Once the national metrics are finalized, staff can make a recommendation to TC on any appropriate supplemental measures.
- It will not be possible to estimate whether adequate investment is being made in pavements on the NHS if some projects are missing from the TIP. All improvements, including resurfacing, reconstruction, and pavement rehabilitation projects on the NHS should be included in the TIP regardless of their fund source.
- Staff will review the HERS-ST model to determine if pavement preservation techniques and widening and resurfacing projects can be modeled indirectly.